November 1, 2001

Ms. Carmen Wegener
Crown Audio, Inc.
P.O. Box 1000
Elkhart, Indiana 46517

Re: Registered Construction and Operation Status,
039-13556-00246

Dear Ms. Wegener:

The application from Crown Audio, Inc., received on November 27, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following amplifier and microphone assembly process, to be located at 1718 West Mishawaka Road, Elkhart, Indiana, 46517 is classified as registered:

Chassis Fabrication and Finishing

(a) One (1) punch and form operation, installed in 1979, with a maximum capacity of 30 parts/hr.

(b) One (1) surface preparation operation, installed in 1979, with a maximum capacity of 30 parts/hr.

(c) Two (2) powdercoat painting operations, identified PC02-01 and PC02-02, installed in 1995, with a maximum capacity of 340 parts/hr, equipped with a powder recycle system.

(d) One (1) powdercoat wash system, installed in 1995, including the following:

(1) One (1) stage 1 washer, exhausting to stack PC01-VEX-01.

(2) One (1) stage 1 natural gas fired burner, with a maximum capacity of 1.5 MMBtu/hr, and exhausting to stack PC01-BEX-01.

(3) One (1) stage 3 natural gas fired burner, with a maximum capacity of 1.5 MMBtu/hr, and exhausting to stack PC01-BEX-02.

(4) One (1) stage 5 washer, exhausting to stack PC01-VEX-02.

(e) One (1) natural gas fired powdercoat bake oven, installed in 1995, with a maximum capacity of 2.5 MMBtu/hr, and exhausting to stacks PC04-EX-01, -02, and –03.

(f) One (1) electric powdercoat oven, installed in 1995 and exhausting to stack PC50.

(g) One (1) natural gas fired burn-off oven, installed in 1995, with a maximum capacity of 0.4 MMBtu/hr and exhausting to stack PC05.

(h) One (1) paint touch-up booth, installed in 1998, with a maximum capacity of 22 parts/hr and exhausting to stack PC54.

(i) Two (2) manual silkscreen stations, installed in 1985, each with a maximum capacity of 75 parts/hr, and exhausting to stack SC01.

(j) One (1) automatic silkscreen station, installed in 1997, each with a maximum capacity of 150 parts/hr, and exhausting to stack SC01.

(k) One (1) pad printer, installed in 1997, with a maximum capacity of 150 parts/hr, and exhausting to stack SC01.

(l) One (1) silkscreen and pad cleaning operation, installed in 1998, and exhausting to stack SC01.

(m) One (1) electric bake oven, installed in 1998, with a maximum capacity of 150 parts/hr, and exhausting to stack SC02.

(n) One (1) shot blast powdercoat removal operation, installed in 1993, with a maximum capacity of 30 parts/hr, and controlled by baghouse P10.

Heatsink Assembly

(o) One (1) aluminum and copper assembly process, installed in 1985, and with a maximum capacity of 100 part/hr.

(p) Two (2) electric bake ovens, installed in 1986, with a maximum capacity of 50 parts/hr and exhausting to stack F58 and F85.

Transformer Fabrication and Wirecut

(q) One (1) cut and strip wire process, installed in 1990, and with a maximum capacity of 800 parts/hr.

(r) One (1) flux and tin process, installed in 1990, with a maximum capacity of 800 parts/hr, and exhausting to stack 127.

(s) One (1) transformer fabrication process, installed in 1992, with a maximum capacity of 80 parts/hr, including the following:

(1) One (1) transformer assembly process

(2) One (1) flux and tin process

(3) One (1) pot transformer

(4) One (1) drill process

Printed Wiring Assembly

(t) One (1) screen solder process, installed in 1979, and with a maximum capacity of 67 parts/hr.

(u) Two (2) electric reflow ovens, identified as M08 and M47, installed in 1985 and 1997, respectively, with a total maximum capacity of 115 parts/hr, and exhausting to stack M08.

(v) One (1) clean screen process installed in 1979, and with a maximum capacity of 67 parts/hr.

(w) Three (3) water-based wave soldering machines, installed in 1996, 1999, and 2000, respectively, with a maximum capacity of 455 parts/hr and exhausting to stacks M38, M50, and M65, respectively.

(x) One (1) printed wiring board assembly testing process, installed in 1979, and with a maximum capacity of 100 parts/hr.

Final Assembly

(y) Nine (9) final amplifier assembly lines, installed in 1968, with the following maximum capacities:

(1) Line 1: 10 amplifiers/hr

(2) Line 2: 10 amplifiers/hr

(3) Line 3: 7 amplifiers/hr

(4) Line 4: 5 amplifiers/hr

(5) Line 6: 10 amplifiers/hr

(6) Line 7: 10 accessories/hr

(7) Line 9: 10 amplifiers/hr

(8) Line 10: 16 amplifiers/hr

(9) Line 11: 10 amplifiers/hr

(z) One(1) final microphone assembly line, identified as Line 5, installed in 1968, and with a maximum capacity of 25 microphones/hr.

(aa) One (1) foam packaging process, installed in 1998, and with a maximum capacity of 2,916 lbs/hr.

Non-Process Heaters

(bb) One (1) natural gas-fired heater, identified as 001, with a maximum capacity of 0.4 MMBtu/hr.

(cc) One (1) natural gas-fired heater, identified as 002, with a maximum capacity of 0.4 MMBtu/hr.

(dd) One (1) natural gas-fired rapid heating system, identified as 017, with a maximum capacity of 1.8 MMBtu/hr.

(ee) One (1) natural gas-fired boiler, identified as 025, with a maximum capacity of 1.0015 MMBtu/hr.

(ff) One (1) natural gas-fired emergency generator, identified as 027, with a maximum capacity of 0.2 MMBtu/hr.

(gg) One (1) natural gas-fired rapid heating system, identified as 067, with a maximum capacity of 1.8 MMBtu/hr.

(hh) One (1) natural gas-fired heater, identified as 092, with a maximum capacity of 0.66 MMBtu/hr.

(ii) One (1) natural gas-fired heater, identified as 093, with a maximum capacity of 0.88 MMBtu/hr.

(jj) One (1) natural gas-fired heater, identified as 116, with a maximum capacity of 0.85 MMBtu/hr.

(kk) One (1) natural gas-fired heater, identified as 117, with a maximum capacity of 0.85 MMBtu/hr.

(ll) One (1) natural gas-fired heater, identified as 121, with a maximum capacity of 0.92 MMBtu/hr.

(mm) One (1) natural gas-fired heater, identified as 122, with a maximum capacity of 0.12 MMBtu/hr.

(nn) One (1) natural gas-fired heater, identified as 128, with a maximum capacity of 0.15 MMBtu/hr.

(oo) One (1) natural gas-fired heater, identified as 129, with a maximum capacity of 0.15 MMBtu/hr.

(pp) One (1) natural gas-fired heater, identified as 130, with a maximum capacity of 0.25 MMBtu/hr.

(qq) One (1) natural gas-fired heater, identified as 131, with a maximum capacity of 0.225 MMBtu/hr.

(rr) One (1) natural gas-fired heater, identified as 132, with a maximum capacity of 0.25 MMBtu/hr.

(ss) One (1) natural gas-fired heater, identified as 133, with a maximum capacity of 0.25 MMBtu/hr.

(tt) One (1) natural gas-fired infrared heater, identified as 135, with a maximum capacity of 0.15 MMBtu/hr.

(uu) One (1) natural gas-fired heater, identified as 138, with a maximum capacity of 0.25 MMBtu/hr.

(vv) One (1) natural gas-fired heater, identified as 139, with a maximum capacity of 0.25 MMBtu/hr.

(ww) One (1) natural gas-fired heater, identified as 141, with a maximum capacity of 0.25 MMBtu/hr.

(xx) One (1) natural gas-fired heater, identified as 142, with a maximum capacity of 0.25 MMBtu/hr.

(yy) One (1) natural gas-fired heater, identified as 143, with a maximum capacity of 0.25 MMBtu/hr.

(zz) One (1) natural gas-fired heater, identified as 144, with a maximum capacity of 0.12 MMBtu/hr.

(aaa) One (1) natural gas-fired heater, identified as 145, with a maximum capacity of 0.161 MMBtu/hr.

(bbb) One (1) natural gas-fired heater, identified as 146, with a maximum capacity of 0.125 MMBtu/hr.

(ccc) One (1) natural gas-fired heater, identified as 147, with a maximum capacity of 0.194 MMBtu/hr.

(ddd) One (1) natural gas-fired heater, identified as 148, with a maximum capacity of 0.08 MMBtu/hr.

(eee) One (1) natural gas-fired heater, identified as 149, with a maximum capacity of 0.08 MMBtu/hr.

(fff) One (1) natural gas-fired heater, identified as 150, with a maximum capacity of 0.12 MMBtu/hr.

(ggg) One (1) natural gas-fired heater, identified as 151, with a maximum capacity of 0.4 MMBtu/hr.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

   (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

2. 326 IAC 6-3-2 (Process Operations)
   The particulate matter (PM) from the chassis fabrication and finishing operations, the heatsink assembly operations, the transformer fabrication and wirecut operations, the printed wiring assembly operations, and the final assembly operations shall be limited according to the table below:

Facility	Throughput (lb/hr)	Allowable PM Emissions (lb/hr)
Chassis Fabrication and Finishing		
punch and form	210	0.91
powdercoat paint	210	0.91
powdercoat wash system	210	0.91
paint touch-up booth	210	0.91
three silkscreen stations	168	0.78
pad printer	252	1.02
shot blast powdercoat removal	210	0.91

Facility	Throughput (lb/hr)	Allowable PM Emissions (lb/hr)
Heatsink assembly		
aluminum and copper assembly	58.24	0.38
Transformer Fabrication and Wirecut		
cut and strip wire process	0.36	0.01
flux and tin process	0.36	0.01
transformer fabrication process	202	0.88
Printed Wiring Assembly		
screen solder process	24	0.21
three water-based wave soldering machines	98	0.54
printed wiring board assembly testing process	122	0.63
Final Assembly		
Final amplifier assembly lines	2,916	5.28
final microphone assembly line	2,916	5.28
foam packaging process	2,916	5.28

Allowable PM emissions were calculated using the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouse PC10, and dry filters PC54, PC02-01 and PC02-02 shall be in operation at all times the shotblast powdercoat removal operation, the paint touch-up booth, and the powdercoat operations are in operation, in order to comply with this limit.

3. 326 IAC 8-2-9 (Miscellaneous Metal Coating)
Potential VOC emissions from each facility are less than twenty-five (25) tons per year, and actual emissions from each facility are less than fifteen (15) pounds per day, therefore, the requirements of 326 IAC 8-2-9 are not applicable. Any change that would increase the potential VOC emissions to greater than twenty-five (25) tons per year, or the actual VOC emissions to greater than fifteen (15) pounds per day for any facility, will cause 326 IAC 8-2-9 to be applicable, and must be approved by OAQ.

4. 326 IAC 4-2-2 (Incinerators)
Pursuant to 326 IAC 4-2-2 (Incinerators) the natural gas-fired burn-off oven exhausting to PC05, shall not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/AR

cc: File - Elkhart County
Elkhart County Health Department
Air Compliance - Paul Karklewicz
Northern Regional Office
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Branch - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	**Crown Audio, Inc.**
Address:	**1718 West Mishawaka Road**
City:	**Elkhart, Indiana 46517**
Authorized individual:	**Tim Bock**
Phone #:	**(219) 294-8341**
Registration #:	**039-13556-00246**

I hereby certify that Crown Audio is still in operation and is in compliance with the requirements of Registration 039-13556-00246.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Crown Audio, Inc.
Source Location:	1718 West Mishawaka Road, Elkhart, Indiana 46517
County:	Elkhart
SIC Code:	3651
Operation Permit No.:	039-13556-00246
Permit Reviewer:	ERG/KH

The Office of Air Quality (OAQ) has reviewed an application from Crown Audio, Inc., relating to the operation of an amplifier and microphone production process.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Chassis Fabrication and Finishing:

(a) One (1) punch and form operation, installed in 1979, with a maximum capacity of 30 parts/hr.

(b) One (1) surface preparation operation, installed in 1979, with a maximum capacity of 30 parts/hr.

(c) Two (2) powdercoat painting operations, identified as PC02-01 and PC02-02, installed in 1995, with a maximum capacity of 340 parts/hr, equipped with a powder recycle system.

(d) One (1) powdercoat wash system, installed in 1995, including the following:

(1) One (1) stage 1 washer, exhausting to stack PC01-VEX-01.

(2) One (1) stage 1 natural gas fired burner, with a maximum capacity of 1.5 MMBtu/hr, and exhausting to stack PC01-BEX-01.

(3) One (1) stage 3 natural gas fired burner, with a maximum capacity of 1.5 MMBtu/hr, and exhausting to stack PC01-BEX-02.

(4) One (1) stage 5 washer, exhausting to stack PC01-VEX-02.

(e) One (1) natural gas fired powdercoat bake oven, installed in 1995, with a maximum capacity of 2.5 MMBtu/hr, and exhausting to stacks PC04-EX-01, -02, and –03.

(f) One (1) electric powdercoat oven, installed in 1995 and exhausting to stack PC50.

(g) One (1) natural gas fired burn-off oven, installed in 1995, with a maximum capacity of 0.4 MMBtu/hr and exhausting to stack PC05.

(h) One (1) paint touch-up booth, installed in 1998, with a maximum capacity of 22 parts/hr and exhausting to stack PC54.

(i) Two (2) manual silkscreen stations, installed in 1985, each with a maximum capacity of 75 parts/hr, and exhausting to stack SC01.

(j) One (1) automatic silkscreen station, installed in 1997, each with a maximum capacity of 150 parts/hr, and exhausting to stack SC01.

(k) One (1) pad printer, installed in 1997, with a maximum capacity of 150 parts/hr, and exhausting to stack SC01.

(l) One (1) silkscreen and pad cleaning operation, installed in 1998, and exhausting to stack SC01.

(m) One (1) electric bake oven, installed in 1998, with a maximum capacity of 150 parts/hr, and exhausting to stack SC02.

(n) One (1) shot blast powdercoat removal operation, installed in 1993, with a maximum capacity of 30 parts/hr, and controlled by baghouse P10.

Heatsink Assembly:

(o) One (1) aluminum and copper assembly process, installed in 1985, and with a maximum capacity of 100 part/hr.

(p) Two (2) electric bake ovens, installed in 1986, with a maximum capacity of 50 parts/hr and exhausting to stack F58 and F85.

Transformer Fabrication and Wirecut:

(q) One (1) cut and strip wire process, installed in 1990, and with a maximum capacity of 800 parts/hr.

(r) One (1) flux and tin process, installed in 1990, with a maximum capacity of 800 parts/hr, and exhausting to stack 127.

(s) One (1) transformer fabrication process, installed in 1992, with a maximum capacity of 80 parts/hr, including the following:

(1) One (1) transformer assembly process

(2) One (1) flux and tin process

(3) One (1) pot transformer

(4) One (1) drill process

Printed Wiring Assembly:

(t) One (1) screen solder process, installed in 1979, and with a maximum capacity of 67 parts/hr.

(u) Two (2) electric reflow ovens, identified as M08 and M47, installed in 1985 and 1997, respectively, with a total maximum capacity of 115 parts/hr, and exhausting to stack M08.

(v) One (1) clean screen process installed in 1979, and with a maximum capacity of 67 parts/hr.

(w) Three (3) water-based wave soldering machines, installed in 1996, 1999, and 2000, respectively, with a maximum capacity of 455 parts/hr and exhausting to stacks M38, M50, and M65, respectively.

(x) One (1) printed wiring board assembly testing process, installed in 1979, and with a maximum capacity of 100 parts/hr.

Final Assembly:

(y) Nine (9) final amplifier assembly lines, installed in 1968, with the following maximum capacities:

(1) Line 1: 10 amplifiers/hr

(2) Line 2: 10 amplifiers/hr

(3) Line 3: 7 amplifiers/hr

(4) Line 4: 5 amplifiers/hr

(5) Line 6: 10 amplifiers/hr

(6) Line 7: 10 accessories/hr

(7) Line 9: 10 amplifiers/hr

(8) Line 10: 16 amplifiers/hr

(9) Line 11: 10 amplifiers/hr

(z) One(1) final microphone assembly line, identified as Line 5, installed in 1968, and with a maximum capacity of 25 microphones/hr.

(aa) One (1) foam packaging process, installed in 1998, and with a maximum capacity of 2,916 lb/hr.

Non-Process Heaters:

(bb) One (1) natural gas-fired heater, identified as 001, with a maximum capacity of 0.4 MMBtu/hr.

(cc) One (1) natural gas-fired heater, identified as 002, with a maximum capacity of 0.4 MMBtu/hr.

(dd) One (1) natural gas-fired rapid heating system, identified as 017, with a maximum capacity of 1.8 MMBtu/hr.

(ee) One (1) natural gas-fired boiler, identified as 025, with a maximum capacity of 1.0015 MMBtu/hr.

(ff) One (1) natural gas-fired emergency generator, identified as 027, with a maximum capacity of 0.2 MMBtu/hr.

(gg) One (1) natural gas-fired rapid heating system, identified as 067, with a maximum capacity of 1.8 MMBtu/hr.

(hh) One (1) natural gas-fired heater, identified as 092, with a maximum capacity of 0.66 MMBtu/hr.

(ii) One (1) natural gas-fired heater, identified as 093, with a maximum capacity of 0.88 MMBtu/hr.

(jj) One (1) natural gas-fired heater, identified as 116, with a maximum capacity of 0.85 MMBtu/hr.

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(mm) One (1) natural gas-fired heater, identified as 122, with a maximum capacity of 0.12 MMBtu/hr.

(nn) One (1) natural gas-fired heater, identified as 128, with a maximum capacity of 0.15 MMBtu/hr.

(oo) One (1) natural gas-fired heater, identified as 129, with a maximum capacity of 0.15 MMBtu/hr.

(pp) One (1) natural gas-fired heater, identified as 130, with a maximum capacity of 0.25 MMBtu/hr.

(qq) One (1) natural gas-fired heater, identified as 131, with a maximum capacity of 0.225 MMBtu/hr.

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(ss) One (1) natural gas-fired heater, identified as 133, with a maximum capacity of 0.25 MMBtu/hr.

(tt) One (1) natural gas-fired infrared heater, identified as 135, with a maximum capacity of 0.15 MMBtu/hr.

(uu) One (1) natural gas-fired heater, identified as 138, with a maximum capacity of 0.25 MMBtu/hr.

(vv) One (1) natural gas-fired heater, identified as 139, with a maximum capacity of 0.25 MMBtu/hr.

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(xx) One (1) natural gas-fired heater, identified as 142, with a maximum capacity of 0.25 MMBtu/hr.

(yy) One (1) natural gas-fired heater, identified as 143, with a maximum capacity of 0.25 MMBtu/hr.

(zz) One (1) natural gas-fired heater, identified as 144, with a maximum capacity of 0.12 MMBtu/hr.

(aaa) One (1) natural gas-fired heater, identified as 145, with a maximum capacity of 0.161 MMBtu/hr.

(bbb) One (1) natural gas-fired heater, identified as 146, with a maximum capacity of 0.125 MMBtu/hr.

(ccc) One (1) natural gas-fired heater, identified as 147, with a maximum capacity of 0.194 MMBtu/hr.

(ddd) One (1) natural gas-fired heater, identified as 148, with a maximum capacity of 0.08 MMBtu/hr.

(eee) One (1) natural gas-fired heater, identified as 149, with a maximum capacity of 0.08 MMBtu/hr.

(fff) One (1) natural gas-fired heater, identified as 150, with a maximum capacity of 0.12 MMBtu/hr.

(ggg) One (1) natural gas-fired heater, identified as 151, with a maximum capacity of 0.4 MMBtu/hr.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Exemption letter issued April 19, 1993.

(b) R039-5121-00246 issued on March 22, 1996.

(c) Exemption 039-5738-00246 issued on May 13, 1996.

All conditions from previous approvals were incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the recycle system be considered as an integral part of the powdercoat paint process:

> The powdercoat recycle system is an integral part of powdercoat paint process because the control device also serves as a product recovery device, recycling the unused powdercoat back in to the system. The powdercoat system could not be operated economically without the recycle system.

IDEM, OAQ has evaluated the justifications and agreed that the recycle system will be considered as an integral part of the powdercoat paint process. Therefore, the permitting level will be determined using the potential to emit after the recycle system. Operating conditions in the proposed permit will specify that this recycle system shall operate at all times when the powdercoat paint process is in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
PC01-VEX-01	Powdercoat washer stage 1	20	1.0	1200	72
PC01-BEX-01	Powdercoat burner stage 1	20	0.67	250	140
PC01-VEX-02	Powdercoat washer stage 5	20	1.0	1200	72
PC01-BEX-02	Powdercoat burner stage 3	20	0.5	135	130
PC04-EX-01	Powdercoat oven	19	0.5	1000	500
PC04-EX-02	Powdercoat oven	19	0.5	1000	500
PC04-EX-03	Powdercoat oven	19	0.5	1000	500
PC50	Powdercoat batch oven	22	0.67	225	500
PC05	Powdercoat burn-off oven	24.5	0.83	400	1600
PC54	Powdercoat touch-up booth	22	1.0	600	70
SC01	Silkscreen room	22.5	0.83	2000	72
SC02	Silkscreen Bake oven	23.5	0.5	325	500
F58	Heatsink oven	10.3	0.3	not measurable	90
F85	Heatsink oven	10.3	0.3	not measurable	90
127	Wire tinning	22	0.67	600	72
M08	Reflow oven	26.5	0.94	100	100
M38	Wave (reflow) solder	28	0.67	700	125
M50	Wave (reflow) solder	28	0.67	700	125
M65	Wave (reflow) solder	28	0.67	700	125

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 27, 2000, with additional information received on April 12, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1-6).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	20.42
PM-10	20.42
SO_2	0.05
VOC	17.97
CO	7.26
NO_x	8.64

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants is less than the levels listed in 326 IAC 2-1.1-3(d)(1), therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 or are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 039-13556-00246, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

© any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of all VOC sources will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the chassis fabrication and finishing operations, heatsink assembly operations, transformer fabrication and wirecut operations, printed wiring assembly operations, and final assembly operations shall be limited according to the following table:

Facility	Throughput (lb/hr)	Allowable PM Emissions (lb/hr)
Chassis Fabrication and Finishing		
punch and form	210	0.91
powdercoat paint	210	0.91
powdercoat wash system	210	0.91
paint touch-up booth	210	0.91
three silkscreen stations	168	0.78
pad printer	252	1.02
shot blast powdercoat removal	210	0.91
Heatsink assembly		
aluminum and copper assembly	58.24	0.38
Transformer Fabrication and Wirecut		
cut and strip wire process	0.36	0.01
flux and tin process	0.36	0.01
transformer fabrication process	202	0.88
Printed Wiring Assembly		
screen solder process	24	0.21
three water-based wave soldering machines	98	0.54
printed wiring board assembly testing process	122	0.63

Facility	Throughput (lb/hr)	Allowable PM Emissions (lb/hr)
Final Assembly		
Final amplifier assembly lines	2,916	5.28
final microphone assembly line	2,916	5.28
foam packaging process	2,916	5.28

Allowable PM emissions were calculated using the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouse PC10, and dry filters PC54, PC02-01 and PC02-02 shall be in operation at all times the shotblast powdercoat removal operation, the paint touch-up booth, and the powdercoat operations are in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Potential VOC emissions from each facility are less than twenty-five (25) tons per year, and actual emissions from each facility are less than fifteen (15) pounds per day, therefore, the requirements of 326 IAC 8-2-9 are not applicable. Any change that would increase the potential VOC emissions to greater than twenty-five (25) tons per year, or the actual VOC emissions to greater than fifteen (15) pounds per day for any facility, will cause 326 IAC 8-2-9 to be applicable, and must be approved by the Commissioner.

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2 (Incinerators) the natural gas-fired burn-off oven exhausting to PC05, shall not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air:

Conclusion

The operation of this amplifier and microphone production process shall be subject to the conditions of the attached proposed Registration 039-13556-00246.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Crown Audio
Address City IN Zip: 1718 West Mishawaka Rd., Elkhart, IN 46515
CP: 039-13556
Plt ID: 039-00246
Reviewer: ERG/AR
Date: 2/14/01

Process	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Painted Chassis	Corvel Powder	10.0	0.00%	0%	0.0%	0%	100.00%	0.00414	340.000	0.00	0.00	0.00	0.00	0.00	15.41	0.00	75%
	Corvel Powder	10.0	0.00%	0%	0.0%	0%	100.00%	0.00414	100.000	0.00	0.00	0.00	0.00	0.00	4.53	0.00	75%
Paint Touch-up booth	Charcoal Black Spray CR-471	7.5	97.00%	14.0%	83.0%	14.5%	64.00%	0.00600	22.000	7.27	6.22	0.82	19.71	3.60	0.08	9.72	40%
	Touch up Paint Marker, Charcoal	7.7	73.50%	0.0%	73.5%	0.0%	34.00%	0.00028	22.000	5.65	5.65	0.03	0.84	0.15	0.03	16.62	40%
Fabrication Chassis	Press Method	6.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.00120	30.000	6.30	6.30	0.23	5.44	0.99	0.00	ERR	90%
Heatsinks	Uniset A-401	14.1	1.00%	0.0%	1.0%	0.0%	99.00%	0.00014	100.000	0.14	0.14	0.00	0.05	0.01	0.09	0.14	90%
	Isopropyl Alcohol	6.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	100.000	6.53	6.53	0.02	0.47	0.09	0.00	ERR	90%
	2002-X Flux	7.0	69.90%	0.0%	69.9%	0.0%	30.10%	0.00003	100.000	4.89	4.89	0.01	0.35	0.06	0.00	16.26	90%
	ICC 854 Spray/Wipe	8.3	52.00%	0.0%	52.0%	0.0%	53.00%	0.00002	100.000	4.34	4.34	0.01	0.23	0.04	0.00	8.18	90%
Screenprint ink station #1 (manual)	Rex ink/retarder as applied	8.6	60.20%	0.0%	60.2%	0.0%	35.07%	0.00220	75.000	5.18	5.18	0.85	20.50	3.74	0.25	14.76	90%
Screenprint ink station #2 (manual)	Grey ink/retarder as appplied	8.6	60.20%	0.0%	60.2%	0.0%	35.07%	0.00220	75.000	5.18	5.18	0.85	20.50	3.74	0.25	14.76	90%
Automatic Screenprint Ink Station	Unipol 8175 Screen Ink, retarder & thinner, as applied	9.8	58.29%	0.0%	58.3%	0.0%	34.29%	0.00028	150.000	5.71	5.71	0.24	5.75	1.05	0.08	16.64	90%
Pad Printer	retarder/thinner as applied	11.9	35.10%	0.1%	35.0%	0.0%	27.82%	0.00009	150.000	4.18	4.18	0.06	1.41	0.26	0.05	15.02	90%
Silkscreen/Pad Cleaning	Isopropyl alcohol	6.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	100.000	6.53	6.53	0.02	0.47	0.09	0.00	ERR	90%
	ICC 854 spray/wipe	8.3	52.00%	0.0%	52.0%	0.0%	53.00%	0.01170	2.000	4.34	4.34	0.10	2.44	0.44	0.04	8.18	90%
Conventional Electronic Modules	No Clean Flux	8.4	97.00%	97.0%	0.0%	0.0%	3.00%	0.00013	455.000	0.00	0.00	0.00	0.00	0.00	0.01	0.00	90%
	Isopropyl alcohol	6.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.00007	455.000	6.53	6.53	0.20	4.78	0.87	0.00	ERR	90%
Surface Mount Electronic Modules	Solder Paste	38.4	2.09%	0.0%	2.1%	0.0%	91.10%	0.00001	115.000	0.80	0.80	0.00	0.03	0.01	0.03	0.88	90%
	Ciba Epibound Adhesive	10.7	9.40%	0.0%	9.4%	0.0%	40.00%	0.00008	115.000	1.00	1.00	0.01	0.22	0.04	0.04	2.51	90%
	SC-10 Stencil cleaning wipes	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	0.00044	5.000	6.68	6.68	0.01	0.35	0.06	0.00	ERR	90%
	Clear Silicone	8.8	4.70%	0.0%	4.7%	0.0%	95.00%	0.00064	115.000	0.41	0.41	0.03	0.73	0.13	0.27	0.43	90%
Wirecut/Wire Tinning	Flux/alcohol as applied	6.6	97.69%	0.0%	97.7%	0.0%	2.31%	1.1E-05	800.000	6.42	6.42	0.06	1.36	0.25	0.00	277.85	90%
Transformers	Flux/alcohol as applied	6.6	97.69%	0.0%	97.7%	0.0%	2.31%	1.1E-05	80.000	6.42	6.42	0.01	0.14	0.02	0.00	277.85	90%
Final Assembly - Amplifiers	Loctite 242/Titan 7242	9.2	13.30%	0.0%	13.3%	0.0%	86.70%	0.00013	90.000	1.22	1.22	0.01	0.34	0.06	0.04	1.41	90%
	Electronic Cleaner	10.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.00016	90.000	10.26	10.26	0.15	3.55	0.65	0.00	ERR	90%
	Isopropyl alcohol	6.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.00010	90.000	6.53	6.53	0.06	1.41	0.26	0.00	ERR	90%
	Windex	8.3	100.00%	95.0%	5.0%	0.0%	0.00%	0.00250	90.000	0.41	0.41	0.09	2.24	0.41	0.00	ERR	90%
	Heatsink Compound	20.0	1.00%	0.0%	1.0%	0.0%	98.00%	0.00110	90.000	0.20	0.20	0.02	0.47	0.09	0.86	0.20	90%
	Silicone	8.8	4.70%	0.0%	4.7%	0.0%	95.00%	0.00230	90.000	0.41	0.41	0.09	2.05	0.37	0.76	0.43	90%
Final Assembly - Microphones	Loctite 242/Titan 7242	9.2	13.30%	0.0%	13.3%	0.0%	86.70%	0.00001	25.000	1.22	1.22	0.00	0.01	0.00	0.00	1.41	90%
Amplifier Packaging	Component A	10.3	0.00%	0.0%	0.0%	0.0%	0.00%	0.01940	180.000	0.00	0.00	0.00	0.00	0.00		ERR	90%
	Component B	8.8	0.00%	0.0%	0.0%	0.0%	0.00%	0.02100	180.000	0.00	0.00	0.00	0.00	0.00		ERR	90%
tate Potential Emissions				**Add worst case coating to all solvents**								**3.99**	**95.83**	**17.49**	**22.81**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: Crown Audio
Address City IN Zip: 1718 West Mishawaka Rd., Elkhart, IN 46515
CP: 039-13556
Plt ID: 039-00246
Reviewer: ERG/AR
Date: 2/14/01

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter, in	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	477
D = Density of abrasive (lb/ft3) From Table 2 =	47.9
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.375
ID1 = Nozzle internal diameter (in) from Table 3 =	0.375

Flow Rate (FR) (lb/hr) = **230.791** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	230.791
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled Emissions =	**2.31 lb/hr**
	10.11 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Crown Audio**
Address City IN Zip: **1718 West Mishawaka Rd., Elkhart, IN 46515**
CP: **039-13556**
Plt ID: **039-00246**
Reviewer: **ERG/AR**
Date: **2/14/01**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
19.7	172.9

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.66	0.66	0.05	8.64	0.48	7.26

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: Crown Audio
Address City IN Zip: 1718 West Mishawaka Rd., Elkhart, IN 46515
CP: 039-13556
Plt ID: 039-00246
Reviewer: ERG/AR
Date: 2/14/01

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.815E-04	1.037E-04	6.483E-03	1.556E-01	2.939E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.322E-05	9.509E-05	1.210E-04	3.285E-05	1.815E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: Crown Audio
Address City IN Zip: 1718 West Mishawaka Rd., Elkhart, IN 46515
CP: 039-13556
Plt ID: 039-00246
Reviewer: ERG/AR
Date: 2/14/01

PM Emissions

1. From baghouse PC-10 (shotblast paint removal)
(SEE P. X OF X FOR EMISSION CALCS)

2. From powder coating - 26.11 tpy (see p. x of x TSD Appendix A)

The control equipment (dry filters) for the powder coating operation is an integral part of the process. Therefore the potential PM emissions are considered after control.

Potential PM Emissions = 26.11 tons/yr * (1-.99) = 0.26 tpy

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: Crown Audio
Address City IN Zip: 1718 West Mishawaka Rd., Elkhart, IN 46515
CP: 039-13556
Plt ID: 039-00246
Reviewer: ERG/AR
Date: 2/14/01

Natural Gas Combustion Facilities:

Facility & ID	ID	Capacity (mmBTU/hr)
Powdercoat stage 1 burner	PC01-BEX-01	1.5
Powdercoat stage 3 burner	PC01-BEX-02	1.5
Powdercoat Bake Oven	PC04-EX-01, -02, -03	2.5
Powdercoat burn-off oven	PC05	0.4
NG Heater	001	0.4
NG Heater	002	0.4
NG Rapid Heating System	017	1.8
Boiler	025	1.0015
Emergency Generator	027	0.2
NG Rapid Heating System	067	1.8
NG Heater	092	0.66
NG Heater	093	0.88
NG Heater	116	0.85
NG Heater	117	0.85
NG Heater	121	0.92
NG Heater	122	0.12
NG Heater	128	0.15
NG Heater	129	0.15
NG Heater	130	0.25
NG Heater	131	0.225
NG Heater	132	0.25
NG Heater	133	0.25
Infrared Heater	135	0.15
NG Heater	138	0.25
NG Heater	139	0.25
NG Heater	141	0.25
NG Heater	142	0.25
NG Heater	143	0.25
NG Heater	144	0.12
NG Heater	145	0.161
NG Heater	146	0.125
NG Heater	147	0.194
NG Heater	148	0.08
NG Heater	149	0.08
NG Heater	150	0.12
NG Heater	151	0.4
TOTAL		**19.7365**

Electric Combustion Facilities

Facility & ID
Powdercoat Bake Oven (PC50)
Silkscreen Bake Oven (SC02)
2 Heatsink Bake Ovens (F58, F85)
2 Reflow Ovens (M08, M47)